

**REMARKS**

This Preliminary Amendment, subsequent to the Notice of Appeal filed on December 12, 2005 and filed in conjunction with a Request for Continued Examination (“RCE”) and a petition to extend within the first month, is a full and timely response to the final Office Action mailed July 12, 2005 and the Advisory Action mailed December 15, 2005. The present amendment amends claims 1 and 12. The filing of this RCE and Amendment is permissible under 37 C.F.R. § 1.114. *See* M.P.E.P. § 706.07(h).

**Drawings**

The final Office Action included an objection to the drawings for failing to show every feature of the invention. This objection is respectfully traversed. However, in order to expedite prosecution, claim 1 has been amended to exclude the recitation of “three terminals.” Withdrawal of the objection to the drawings is therefore courteously solicited.

**Claim Rejections- 35 U.S.C. § 103*****Claim 1***

In the Action, claim 1 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,573,627 to Sun (“Sun”) in view of U.S. Patent No. 6,274,955 to Satoh et al. (“Satoh”) in view of U.S. Patent No. 5,175,459 to Danial et al. (“Danial”). This rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a small vibration motor comprising **a bottom plate** which **supports said substrate** and **to which a radial bearing** that said shaft is engaged with is **fixed** and wherein said substrate comprises **a flexible substrate**.

In contrast, although Sun arguably discloses a vibration motor with a top cover and a shaft installed at the center of a circuit board, Sun fails to disclose, teach or suggest *at least* a **bottom plate** which **supports said substrate** and **to which a radial bearing** that said shaft is engaged with is **fixed** and wherein said substrate comprises **a flexible substrate** as recited in claim 1. *See, e.g.*, col. 2, lines 60-62 and col. 3, lines 15-16. In fact, although Sun arguably discloses that a weighted object repels from an inductance coil to rotate, Sun fails to disclose,

teach or suggest *at least* a bottom plate to which a **radial bearing** that a shaft is engaged with is fixed as recited in claim 1. *See, e.g.*, col. 4, lines 6-8.

Likewise, although Satoh arguably discloses a vibration motor with a bearing unit fixed to a motor printed board, Satoh fails to disclose, teach or suggest *at least* a **bottom plate** which **supports said substrate and to which a radial bearing** that said shaft is engaged with is **fixed** and wherein said substrate comprises a **flexible substrate** as recited in claim 1. *See, e.g.*, col. 7, lines 9-11. In fact, although Satoh arguably discloses that the vibration motor is mounted directly on a main-body printed board, Satoh fails to disclose, teach or suggest a **bottom plate** which supports said substrate and **to which a radial bearing is fixed** as recited in claim 1. *See, e.g.*, col. 8, lines 15-17.

Additionally, although Danial arguably discloses a vibratory alerting device with a rigid member integrated into a circuit supporting substrate, Danial fails to disclose *at least* a **bottom plate** which **supports said substrate and to which a radial bearing** that said shaft is engaged with is **fixed** and wherein said substrate comprises a **flexible substrate** as recited in claim 1. *See, e.g.*, col. 4, lines 25-27. In fact, Danial teaches that a pin or post is rigidly coupled to a substrate and fails to disclose, teach or suggest a **bottom plate** to which a **radial bearing** is fixed as recited in claim 1. *See, e.g.*, col. 4, lines 27-32.

Accordingly, because Sun, Satoh and Danial, either alone or in combination, fail to disclose, teach or suggest each and every limitation of claim 1, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *accord*. MPEP 2143.03.

### *Claim 12*

In the Action, claim 12 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,573,627 to Sun (“Sun”) in view of U.S. Patent No. 6,274,955 to Satoh et al. (“Satoh”) in view of U.S. Patent No. 6,608,410 to Sato et al. (“Sato”). This rejection is respectfully traversed.

Claim 12 recites, *inter alia*, a small vibration motor comprising a **rotatable shaft** supported by at least a **radial bearing** on said thin metal bottom plate, and a **thrust bearing**

**at an end of said shaft near said thin metal bottom plate and a flexible substrate supported by said thin metal bottom plate.**

In contrast, although Sun arguably discloses a vibration motor with a top cover and a shaft installed at the center of a circuit board, Sun fails to disclose, teach or suggest *at least a rotatable shaft supported by at least a radial bearing on said thin metal bottom plate, and a thrust bearing at an end of said shaft near said thin metal bottom plate and a flexible substrate supported by said thin metal bottom plate* as recited in claim 12. *See, e.g., col. 2, lines 60-62 and col. 3, lines 15-16.* In fact, although Sun arguably discloses that a weighted object repels from an inductance coil to rotate, Sun fails to disclose, teach or suggest *at least a rotatable shaft supported by at least a radial bearing and a thrust bearing* as recited in claim 12. *See, e.g., col. 4, lines 6-8.*

Likewise, although Satoh arguably discloses a vibration motor with a bearing unit, constituted by a thrust pad, fixed to a motor printed board, Satoh fails to disclose, teach or suggest *at least a rotatable shaft supported by at least a radial bearing on said thin metal bottom plate, and a thrust bearing at an end of said shaft near said thin metal bottom plate and a flexible substrate supported by said thin metal bottom plate* as recited in claim 12. *See, e.g., col. 7, lines 9-11 and 14-16.* In fact, although Satoh arguably discloses that the vibration motor is mounted directly on a main-body printed board, Satoh fails to disclose, teach or suggest *a thin metal bottom plate* as recited in claim 12. *See, e.g., col. 8, lines 15-17.*

Additionally, although Sato arguably discloses a DC motor including a metal cover, a support member having a bearing holder, together with a bearing, Sato fails to disclose, teach or suggest *at least a small vibration motor comprising a rotatable shaft supported by at least a radial bearing on said thin metal bottom plate, and a thrust bearing at an end of said shaft near said thin metal bottom plate and a flexible substrate supported by said thin metal bottom plate* as recited in claim 12. *See, e.g., col. 3, lines 1-3 and lines 14-23.* In fact, not only does Sato fail to disclose, teach or suggest *at least a radial bearing on a thin metal bottom plate*, Sato teaches that the rear end of the shaft is always in contact with the metal cover and fails to disclose, teach or suggest a thrust bearing at an end of the shaft near the thin metal bottom plate as recited in claim 12. *See, e.g., col. 3, lines 38-40.*

Accordingly, because Sun, Satoh and Sato, either alone or in combination, fail to disclose, teach or suggest each and every limitation of claim 12, a *prima facie* case of

obviousness has not been established, and withdrawal of this rejection is respectfully requested.

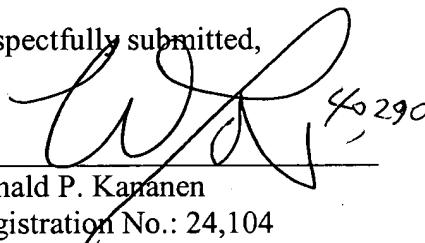
*See, e.g., In re Royka, 490 F.2d 981; accord. MPEP 2143.03.*

Conclusion

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2781 from which the undersigned is authorized to draw.

Dated: *March 8, 2006*

Respectfully submitted,  
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